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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,688	02/27/2002	Lee Chow	UCP-293	6411

23717 7590 08/17/2004

LAW OFFICES OF BRIAN S STEINBERGER  
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EXAMINER
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PADGETT, MARIANNE L

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

10/084,688

Applicant(s)

CHOW ET AL.

Examiner

Marianne L. Padgett

Art Unit

1762

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 1,3 and 15-33.

Claim(s) withdrawn from consideration: \_\_\_\_\_

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
10. ☒ Other: See Continuation Sheet

MARIANNE PADGETT  
PRIMARY EXAMINER

Continuation of 2. NOTE: the clarification of claims 20 & 27 create new steps or procedures not previously examined due to lack of clarity, and do not bring all the claims clearly into condition for allowance. Nor was support for thickness discussed, but thickness of deposit, as opposed to diameter which was considered to probably mean width may also be considered a new issue, since the exemplary 300nm width of deposits was discussed in the rejection, not the 100 nm thicknesses.

Continuation of 3. Applicant's reply has overcome the following rejection(s): the 7/30/04 amendment would correct 112 problems as described in sections 1, 2 & 3 of the action mailed 7/2/04. Note that the clarification of the processes with respect to the configurations i claims 20 & 27, would appear to remove the claims from the art rejections over Nishioka et al.

The New Matter problems discussed in section 4 would be partially overcome, in that claims 15, 22 & 29 would be amended so that use as a thermocouple is after its formation, not during, however no support for the claimed RANGES of claims 16-17, etc dependant from the amended claims 15, etc, was provided or found in the citation listed on p.7 of the after final response. Note that the specific value as given in the abstract or on p. 5 is only a point, does not support the claimed range, and appears to only be applicable to the metals W + Pt used in the claimed technique.

Continuation of 5. does NOT place the application in condition for allowance because: applicants appear to base their entire argument on the fact that Nishioka does not teach the exact dimensions applicants claim, i.e. the reference is not a 102. This is not convincing. They have not provided any real or scientific reasons why the reasons for obviousness stated by the examiner are incorrect. Why would one of ordinary skill in the art, when optimizing for particular end uses, knowing size reduction is desirable as taught in Nishioka's background (col.1); that analyzing electrodes may be formed having desired shape, size and thickness (col.8, lines 10-14 & 51-60); exemplary 100nm thick for W (col.6, lines 54-67) & having an exemplary width of 300nm for an analyzing electrode, i.e. a type of sensor, not be expected to consider sizes as claimed for like FIB techniques? Claimed sizes are smaller, but within an order of magnitude, with size reduction taught as desirable. Applicants' claim 1 is directed to ANY bi-metal sensor junction, which as suggested by Nishioka use that reads on the claimed configuration, but that differs from applicants' specific thermocouple, that there exist a wide variety of multi-metal nano configurations that may be considered a sensor, thus one would expect variations for specific types or uses. Does the claimed size/ dimensions have any special significance for temperature sensor/ thermocouples? Applicants provide no actual reasons why the secondary references do not provide the obviousness as described in the rejection, nor any reason why they should not be combined, except to imply without any showing or clear statement of how, that the examiner must have used applicants' disclosure. This is not convincing.

Continuation of 10. Other: Applicants' response is incomplete as it contains no mention let alone statement on the substance of the 7/26/04 interview. The changes to the specification were not discussed in the remarks, nor support therefore given, however the dimensions are found in original claims 18-19, etc., and p.3, lines 15-20, where all refer to "diameter". Figure 1a illustrates Pt & W lines where the perspective could be described as either side-by-side or an edge on view of overlapping deposits, either without showing the substrate. Page 3, lines 20-22 could support either option, however original and present claims suggest one metal deposited on another although the figures would be completely not to scale since the length of the shown overlap is 2X as long as the 50 nm "thickness", not suggestive of the taught 50x50=2500 nm squ. area.